

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A transmitter comprising:
an input-side digital multi-port directional coupler configured to divide and combine
~~for dividing and combining~~ digital transmission signals of N channels by digital processing
and configured to output ~~for outputting~~ N-channel signals to N transmission channels,
respectively;

N predistorters inserted in said N transmission channels, respectively, ~~for linearizing~~
said N transmission channels configured to provide compensating predistortions to the N-
channel signals outputted from said input-side digital multi-port directional coupler;

N transmitting parts inserted in said N transmission channels, respectively, ~~for~~
converting configured to convert output signals from said N predistorters to N high-frequency
signals ~~of said N channels, each of said N transmitting parts including a power amplifier for~~
amplifying power of the high-frequency signal; [[and]]

an output-side multi-port power combiner configured to divide and combine ~~for~~
~~dividing and combining~~ said N high-frequency signals ~~of said N transmission channels~~ to
output N high-frequency transmission signals ~~for said N transmission channels;~~ and

N receiving parts configured to extract, from said N high-frequency signals, distortion
components produced by the power amplifiers and configured to generate, based on said
distortion components, compensating signals which control said N predistorters, wherein
based on said compensating signals, said N predistorters generate compensating
predistortions and impart said compensating predistortions to said N-channel signals,
respectively, to cancel the distortion components at said power amplifiers.

Claim 2 (Canceled).

Claim 3 (Currently Amended): The transmitter of claim 1 [[2]], wherein said N predistorters of N channels are digital predistorters configured to impart of N channels for imparting said compensating predistortions to said N-channel signals of N channel by digital processing, and which further comprises:

N digital-to-analog converters inserted in said [[of]] N transmission channels configured to convert for converting the outputs from said N predistorters of N channels to analog signals of N channels and configured to apply for applying said analog signals of N channels to said N transmitting parts of N channels, respectively; and

N digital-to-analog converters configured to convert of N channels for converting said compensating signals from said N receiving parts of N channels to digital compensating signals and configured to apply for applying said N digital compensating signals to said digital predistorters of N channels.

Claim 4 (Currently Amended): The transmitter of claim 1 [[2]], wherein said N predistorters [[of N]] channels are analog predistorters, and which further comprises N digital-to-analog converters inserted in said [[of]] N transmission channels configured to convert for converting said signals of N channels N-channel signals output from said input side digital multi-port directional coupler to analog signals for application to said N digital predistorters of N channels, said N receiving parts of N channels providing said compensating signals to said N digital predistorters.

Claim 5 (Currently Amended): The transmitter of claim 3 or 4, wherein each of said N transmitting parts of N channels includes:

an up-converting part configured to up-convert for the corresponding one of said signals of N channels N-channel signals to a high-frequency signal of the transmission frequency band; and [[a]]

the power amplifier configured to amplify for amplifying the power of said high-frequency signal and configured to apply for applying said power-amplified high-frequency signal to said output side multi-port directional coupler.

Claim 6 (Currently Amended): The transmitter of claim 3 or 4, wherein each of said N receiving parts of N channels includes:

a detecting part configured to detect for detecting the corresponding one of said high-frequency signals of said N transmission channels;

a band-pass filter configured to extract for extracting a distortion component by said power amplifier from said detected output; and

a control part configured to generate for generating said compensating signal based on said distortion component.